FREEZE SENTRY

FREEZE PROTECTION FOR POOLS, SPAS AND WATER FEATURES By INTERMATIC®

INSTALLATION OPERATION & SERVICE MANUAL

Model: PF1102T TIME CONTROL WITH FREEZE PROTECTION

IN RAINPROOF (TYPE 3R) ENCLOSURE

Model: PF1102MT TIME CONTROL MECHANISM ONLY WITH FREEZE PROTECTION

SUITABLE FOR POOL/SPA EQUIPMENT CONTROL

INPUT VOLTAGE: 240 VOLT - 60 HZ.
ELECTRICAL RATING: 3 HP - 240 VOLT AC.

DANGER! To Reduce the Risk of Injury:

...do not permit children to operate the Control Unit or use the Pool/Spa unless they are closely supervised at all times.
...test GROUND FAULT protection regularly. If it fails to reset, DO NOT USE THE POOL or SPA! Contact a qualified service technician.
...always disconnect electricity before servicing this control or the equipment(s) connected to it. THIS CONTROL IS NOT TO BE USED AS A POWER DISCONNECT.

READ, FOLLOW & SAVE THIS INSTRUCTION MANUAL

GENERAL INFORMATION

This Time Control with Freeze Protection is designed to automatically control as well as protect the Pool/Spa equipment and plumbing against freeze damage. The Control, if wired according to instructions, turns ON/OFF the Filter Pump on a daily schedule and also turns ON the Filter Pump when the air temperature (where this Control is located) drops below the temperature set by the thermostat dial (between 32˚F and 45˚F). Nevertheless, the control is not intended to be a substitute for insulation, coverings or maintenance.

It is self-contained in an indoor-outdoor, beige, rainproof enclosure and designed to operate on 240 Volt, 60 cycle only.

Model PF1102MT is a mechanism only, functions just like Model PF1102T and fits (snaps into) any Intermatic Pool Panel, Models T10000R, T30000R or T40000R Series.

IMPORTANT SAFETY INSTRUCTIONS

When installing and operating this Product and other associated equipment, basic safety precautions should always be followed.

1. *This Control must be installed by a qualified person, according to National and Local Electrical Codes.*
2. *Install this Control not less than 5 feet (3 meters in Canada) from inside edge of pool and 1 foot (30cm) above ground.USE COPPER CONDUCTORS ONLY rated minimum 75˚ C.*
3. *Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.*
4. *For Control grounding, bonding, installing and the wiring of underwater lights, refer to Article 680of the National Electrical Code or Article68 of the Canadian Electrical Code.*
5. *The Control should not operate any equipment which would cause bodily injury or property damage should it be activated unexpectedly.*

INSTALLATION

1. Select the proper outdoor location for the Control and prepare the necessary conduit run(s) required by the installation layout.
2. Hang enclosure on a flat vertical surface or other support, using hardware suitable for the purpose.
3. Properly terminate conduits at both ends and pull-in the conductors (Min.75˚C Rated) as specified by the installation layout.
4. Follow wiring diagram on page 4 of this manual and make LINE and LOAD (Pump) connections as shown. The LINE connections are Black and Red. Connect LOAD (Filter Pump) to Blue and Yellow leads. Make sure the installation is properly grounded.
5. If the Control is installed in location where it is exposed to direct sun most of the day, extend 8 inches of the copper capillary tube of the thermostat into an open ended (plastic or metal) conduit, about 10 inches long, installed at bottom of the enclosure. Handle capillary tube with care!
6. TEST INSTALLATION:
   a. Turn thermostat dial to its lowest setting and place crushed ice (in plastic bag) inside capillary coil of Thermostat.
   b. Turn power ON to Control, wait one minute then slowly turn thermostat dial counterclockwise until Filter Pump starts.
   c. Turn power OFF to Control, remove ice, check wiring, reinstall front plate.
   d. Turn power ON to Control and set Timer and the Thermostat, see OPERATION instructions on page 3.

INSTALLATION - MODEL PF1102MT

1. Install mechanism in any Intermatic Pool Panel with only one Time Switch by snapping it into the unused mounting bracket, furnished with the Panel.

SETTING / OPERATING INSTRUCTIONS

TO SET ELECTRONIC FILTER TIMER, follow instructions on page 3. The length of the daily filtration/heating cycle depends on many variables such as size, shape, and geographic location of the pool, water chemistry, type of pool equipment, usage and season of year. If not sure, contact your local pool service professional for advice.

TO SET THERMOSTAT, turn dial to desired temperature between 32˚F and 45˚F. Remember, many variables,such as the location of this Control, the location of the pool or spa, the location and insulation of the plumbing, etc., must be considered before selecting the “turn ON” temperature of the Filter Pump. Your local pool service professional is the best source of information. The Thermostat is factory set to turn OFF the Filter Pump when the ambient temperature rises 5˚ F above its set point.

OPERATION (CONT.)

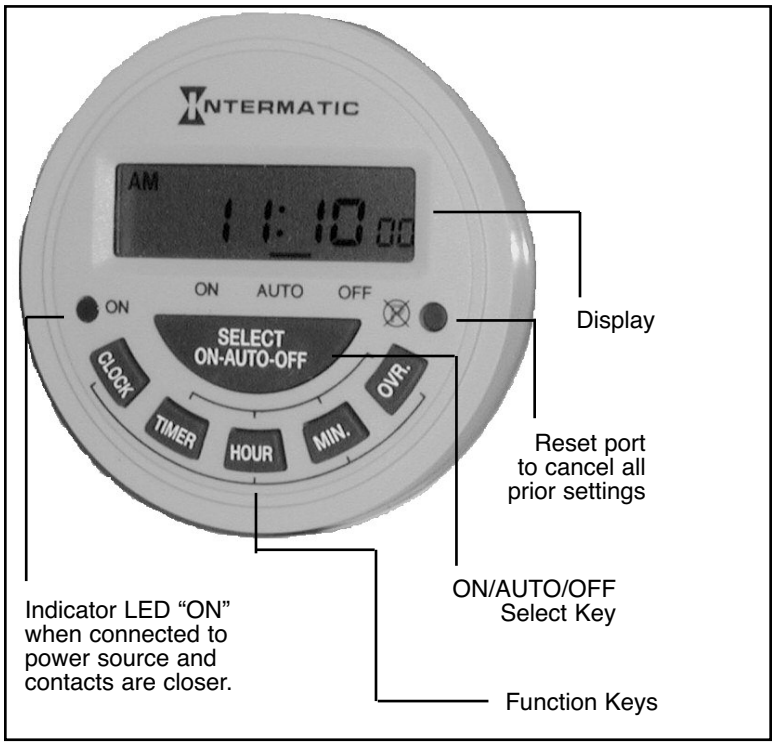
Programming Instructions
To Set or Change the Time of Day: To clear entire memory, press ⊗ key. Hold down the CLOCK key while pressing either the HOUR or MINUTE keys. Continue pressing until the desired number is shown. Then simply lift finger off the CLOCK key to set.

To Set Program (ON/OFF times): Press TIMER key once to enter into program mode. Display will show "1 ON-- --". Press the HOUR key and then the MINUTE key to select the desired first ON time. Press TIMER key once. Display will show "1 OFF-- --". Repeat previous step to select the desired first OFF time. Repeat the entire sequence to complete up to eight total ON/OFF times as desired. When programming is done, press the CLOCK key then the SELECT key repeatedly until the indicator bar is above the word "AUTO".

To Review Program: Press TIMER key repeatedly. When done, press CLOCK key to return to the time of day.

To Cancel/Change Part of the Program: Press TIMER key repeatedly until the particular On or OFF time appears. Set new ON or OFF time.

To Override the Automatic Operation one time: Press OVR. key.
NOTE: *Timer will resume automatic operation with the next opposite set-point.*



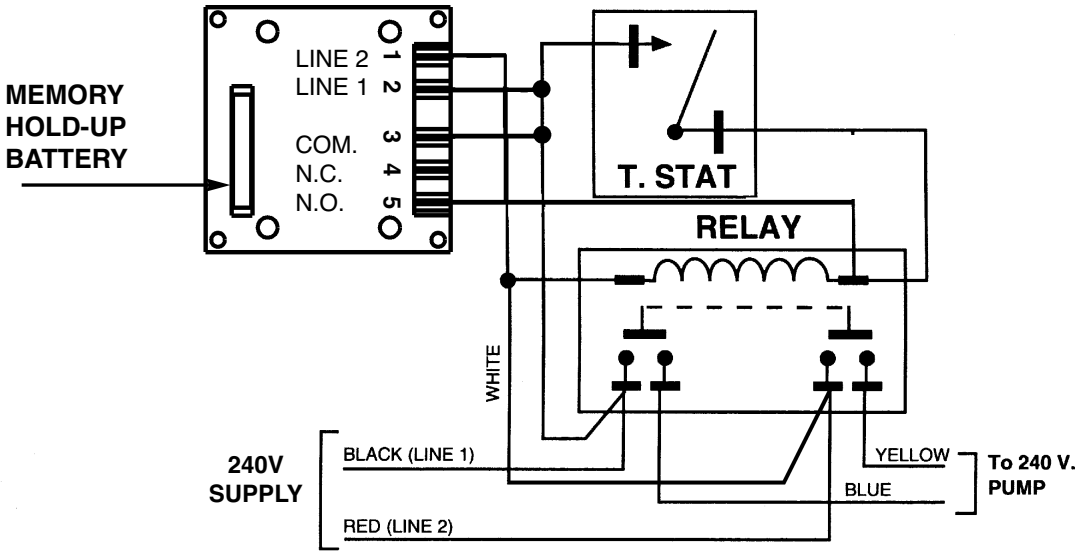
To Override Automatic Operation Permanently: Press SELECT key to move indicator bar to the desired ON or OFF position. **NOTE:** *Timer will not resume automatic operation until indicator bar is repositioned above the word AUTO.*

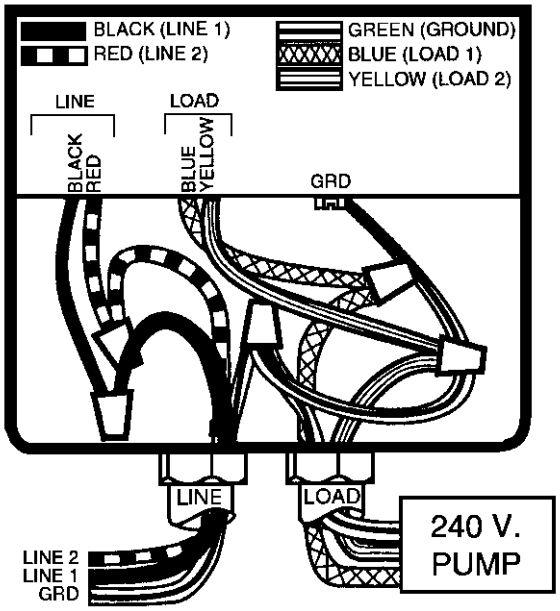
TROUBLESHOOTING

SYMPTOM	CAUSE(S)	CORRECTIVE ACTION
1. Blank Timer Display	Discharged battery Defective timer	Replace battery Replace timer
2. Timer will not respond to programming	Memory is full	Press ⊗ to clear memory
3. Timer will not function as programmed	Timer is not in "AUTO" mode	Press SELECT key and move indicator bar over to AUTO
4. Pump is ON at all times	Timer is in Permanent "ON" mode Defective timer Defective relay	See above. Replace timer Replace relay
5. Filter Pump will not start when temp.is below 32°F.	Defective thermostat Defective relay Faulty wiring	Replace thermostat Replace relay Check wiring

WIRING DIAGRAMS

INTERNAL WIRING





LIMITED ONE YEAR WARRANTY

If within one (1) year from the date of purchase, this product fails due to a defect in workmanship, Intermatic Incorporated will repair or replace it, at its sole option, free of charge. This warranty s extended to the original household purchaser only and is not transferable. This warranty does not apply to: (a) damage to units caused by accident, dropping, or abuse in handling, acts of God or any negligent use; (b)units which have been subject to unauthorized repair, opened, taken apart or otherwise modified; (c) units not used in accordance with instructions; (d) damages exceeding the cost of the product; (e) sealed lamps and/or lamp bulbs, LED's and batteries; (f) the finish on any portion of the product. such as surface and/or weathering, as this is considered normal wear and tear, (g) transit damage, initial installation costs, removal costs, or reinstallation costs.

INTERMATIC INCORPORATED WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES. ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE,ARE HEREBY MODIFIED TO EXIST ONLY AS CONTAINED IN THIS LIMITED WARRANTY, AND SHALL BE OF THE SAME DURATION AS THE WARRANTY PERIOD STATED ABOVE. SOME STATES DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

This warranty service is available by either (a) returning the product to the dealer from whom the unit was purchased, or (b) mailing the product, along with proof of purchase, postage prepaid to the authorized service center listed below. This warranty is made by: Intermatic Incorporated/After Sales Service/7777 Winn Rd., Spring Grove, Illinois 60081-9698/815/675/7000 http://www.intermatic.com Please be sure to wrap the product securely to avoid shipping damage.

Because of our commitment to continuing research and improvements, Intermatic Incorporated reserves the right to make changes, without notice, in the specifications and material contained herein and shall not be responsible for any damages, direct or consequential, caused by reliance on the material presented.

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